AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method comprising:

identifying a receive capability associated with one or more priority levels of Ethernet traffic for a network device by scanning a plurality of receive buffers to determine whether content in the buffers has reached or exceeded a predetermined threshold;

~~determining~~ if the content in the buffer has reached or exceeded a predetermined threshold, identifying a flow control priority level that is oversubscribed based on monitoring one or more of a class-of-service, a type-of-service, a quality-of-service, and a time sensitivity of the Ethernet traffic, wherein the flow control priority level denotes an identified priority level above and/or below which the network device is able to receive Ethernet traffic; and

generating a control message including the flow control priority level, the flow control priority level to cause throttling of Ethernet traffic from network devices receiving the control message.

2. (Previously Presented) The method of claim 1, further comprising:

transmitting the generated control message to a communicatively coupled network device, whereupon receipt of the generated control message the communicatively coupled network device acts in accordance with the received control message to suspend a subset of Ethernet traffic.

3. (Previously Presented) The method of claim 1, wherein the identifying further comprises determining available buffer capacity for each of a plurality of buffers associated with a commensurate plurality of Ethernet priority levels.

4. (Previously Presented) The method of claim 3, wherein the available buffer capacity associated with a particular Ethernet priority level denotes the ability of the buffer to receive additional Ethernet traffic of that priority level.

5. (Previously Presented) The method of claim 3, wherein the buffer for each priority level is comprised of one or more memory devices.

6. (Previously Presented) The method of claim 3, wherein the buffers associated with each of the priority levels are virtual buffers implemented within a common physical buffer.

7. (Previously Presented) The method of claim 3, wherein the generated control message includes an indication of the priority level above which a receive buffer has available capacity to receive Ethernet traffic of an associated priority level.

8. (Previously Presented) The method of claim 7, wherein a receiving network device initiates a pause in transmission of Ethernet traffic having a priority level below that indicated in the received control message.

9. (Previously Presented) The method of claim 1, wherein the generating of the control message further comprises generating an Ethernet control packet including a priority field, wherein the priority field denotes the flow control priority level.

10. (Previously Presented) The method of claim 9, wherein the priority field is included in a header portion of the Ethernet control packet.

11. (Previously Presented) The method of claim 1, further comprising:

receiving Ethernet traffic;

identifying a priority level associated with each packet of received Ethernet traffic; and

forwarding each received packet to a receive buffer based, at least in part, on the identified priority level associated with the Ethernet packet.

12. (Previously Presented) The method of claim 11, further comprising monitoring the receive capability of buffers associated with each of the priority levels of Ethernet traffic.

13. (Previously Presented) The method of claim 1, wherein throttling transmission of a subset of Ethernet traffic comprises temporarily suspending transmission of the subsets of Ethernet traffic for a set period of time and/or until another control message is received denoting that transmission of the subset of Ethernet traffic may resume.

Claims 14-20 (Cancelled)

21. (Currently Amended) A system comprising:

a plurality of receive buffers~~, each~~ associated with ~~a~~ one or more ~~particular~~ priority ~~level~~ levels of Ethernet traffic; and

control logic, coupled to the receive buffers to

identify a receive capability associated with one or more priority levels of Ethernet traffic for a network device by scanning a plurality of receive buffers to determine whether content in the buffers has reached or exceeded a predetermined threshold,

~~determine~~ if the content in the buffer has reached or exceeded a predetermined threshold, identify a flow control priority level that is oversubscribed based on monitoring one or more of a class-of-service, a type-of-service, a quality-of-service, and a time sensitivity of the Ethernet traffic, wherein the flow control priority level denotes an identified priority level above and/or below which the network device is able to receive Ethernet traffic, and

generate a control message including the flow control priority level, the flow control priority level to cause throttling of Ethernet traffic from network devices receiving the control message

~~identify a receive capability of each of the receive buffers and selectively generate control messages including the flow control priority level to cause throttling of Ethernet traffic from network devices receiving the control messages~~.

22. (Previously Presented) The system of claim 21, further comprising:

a transmit buffer, responsive to a host network device and the control logic, to

receive content from one or more applications executing on the host network device for transmission to other network devices through an Ethernet network, the received content including an indication of priority level.

23. (Previously Presented) The system of claim 22, wherein the indication of priority level in the received content is determined by its source application.

24. (Previously Presented) The system of claim 22, wherein the control logic receives control messages from other network interfaces wherein at least a subset of the control messages include a flow control priority level denoting an inability to receive Ethernet traffic having a priority level below that of the denoted flow control priority level.

25. (Previously Presented) The system of claim 24, wherein the control logic suspends transmission of Ethernet traffic having a priority level below that of the denoted flow control priority level from the transmit buffer to the network device having issued the control message.

26. (Previously Presented) The system of claim 21, wherein the control logic is a media access controller (MAC).

27. (Previously Presented) The system of claim 26, the MAC including enhanced flow control capability to implement flow control on a mere subset of Ethernet traffic.

28-30. (Cancelled)

31. (Currently Amended) A ~~tangible machine-readable~~ computer-readable medium having ~~sets of instructions~~ computer program, which when executed ~~by a machine~~, causes ~~the~~ a ~~machine~~ computer to:

identify a receive capability associated with one or more priority levels of Ethernet traffic for a network device by scanning a plurality of receive buffers to determine whether content in the buffers has reached or exceeded a predetermined threshold;

~~determine~~ if the content in the buffer has reached or exceeded a predetermined threshold, identify a flow control priority level that is oversubscribed based on monitoring one or more of a class-of-service, a type-of-service, a quality-of-service, and a time sensitivity of the Ethernet traffic, wherein the flow control priority level denotes an identified priority level above and/or below which the network device is able to receive Ethernet traffic; and

generate a control message including a flow control priority level, the flow control priority level denoting the identified priority level above or below which the network device has the ability to receive Ethernet traffic.

32. (Currently Amended) The ~~tangible machine-readable~~ computer-readable medium of claim 31, wherein the ~~sets of instructions,~~ computer program when executed, ~~by the machine, further~~ further cause the ~~machine~~ computer to transmit the generated control message to a communicatively coupled network device, whereupon receipt of the generated control message the communicatively coupled network device acts in accordance with the received control message to suspend a subset of Ethernet traffic.

33. (Currently Amended) The ~~tangible machine-readable~~ computer-readable medium of claim 31, wherein the ~~sets of instructions,~~computer program when executed, ~~by the machine, further~~ further cause the ~~machine~~ computer to ~~determining~~ determine available buffer capacity for each of a plurality of buffers associated with a commensurate plurality of Ethernet priority levels.

34. (Currently Amended) The ~~tangible tangible machine-readable~~ computer-readable medium of claim 31, wherein the ~~instructions~~ program which when ~~further~~ executed, ~~cause the machine~~further cause the computer to:

receive Ethernet traffic;

identify a priority level associated with each packet of received Ethernet traffic; and

forward each received packet to a receive buffer based, at least in part, on the identified priority level associated with the Ethernet packet.

35. (Currently Amended) The ~~tangible machine-readable~~ computer-readable medium of claim 34, wherein the ~~instructions~~ computer program which when ~~further~~ executed, further cause the ~~machine~~ computer to monitor the receive capability of buffers associated with each of the priority levels of Ethernet traffic.

36. (Currently Amended) The ~~tangible machine-readable~~ computer-readable medium of claim 31, wherein the ~~instructions~~ computer program which when executed, further cause the computer to throttle transmission of a subset of Ethernet traffic, further cause the machine to temporarily suspend transmission of the subsets of Ethernet traffic for a set period of time and/or until another control message is received denoting that transmission of the subset of Ethernet traffic may resume.